ABSTRACT

The present invention provides an improved method of removing fluids, gases or other biomolecules, or delivering a pharmaceutical composition, through the skin of a patient without the use of a sharp or needle. The method includes the step of irradiating the stratum corneum, an applied pharmaceutical or an absorbing material, using a laser. By selection of parameters, the laser irradiates the selected material or tissue to create pressure gradients, plasma, cavitation bubbles, or other forms of tissue ablation or alteration. These methods increase the diffusion of pharmaceuticals into, or fluids, gases or other biomolecules out of, the body. For this invention, a pharmaceutical composition can be applied to the skin before or after laser irradiation.